

STEPP III

Automotive Vehicle Location solution

Quad Band GSM/GPRS Engine

Voice, SMS, Data, TCP/IP

High sensitive 20 channel SiRFstarIII GPS

Automotive temperature range

Configurable history function

Configurable geo-fencing

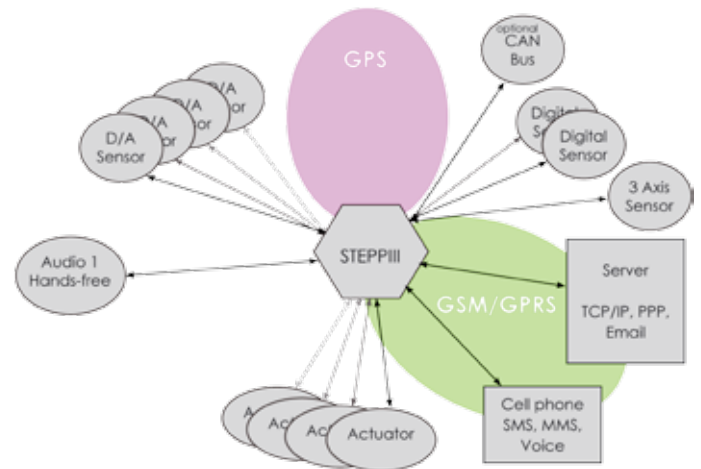
Fully specified (FTA, FCC, e1, CE)

3-Axis motion sensor

Online Tracking

Evalkit including evaluation
and configuration tool

Options: Backup battery
CAN interface



The FALCOM STEPP III

is a Plug & Play GSM/GPRS/GPS terminal with an embedded configurable software application. The device concept is targeting for direct implementation as a mobile client in a wide range of high volume, low-cost, flexible system solutions like AVL, fleet management, vehicle security and recovery and other related areas. The tracking functionality of the embedded mobile client application is combined with variety of alert messaging capabilities. The configurable alert messages contain current position and status report and use 2 digital and 4 analogue inputs and 4 digital outputs as hardware back-bone. In addition to that two predefined inputs are detecting ignition line and main power (car battery) failure. Depending on

the specific system solution scenario four digital outputs allow the remote control of external actuators. The integrated audio channel allow voice communication too.

The STEPP III concept reduces the efforts for the creation of a turn key tracking and security solution to the definition of the server (dispatcher) application. In this way the time-to-market, the design-in risk and the total cost of solution are substantially reduced.

The STEPP III-Evalkit provides an easy and efficient way to evaluate and configure all system parameters of the mobile client. The configuration of the STEPP III can be done via local serial link or remotely via the GSM network.

Software features

- Configurable geo-fencing
- Configurable history with more than 300.000 records
- Configurable localisation and status report upon dispatcher request
- Configurable localisation and status report by timer
- Configurable two digital and four analogue inputs for alert messaging
- Four digital outputs for remote control of external actuators
- Configurable sleep mode
- Controlled by PFAL commands
- Voice, SMS, CSD, TCP/IP



Applications

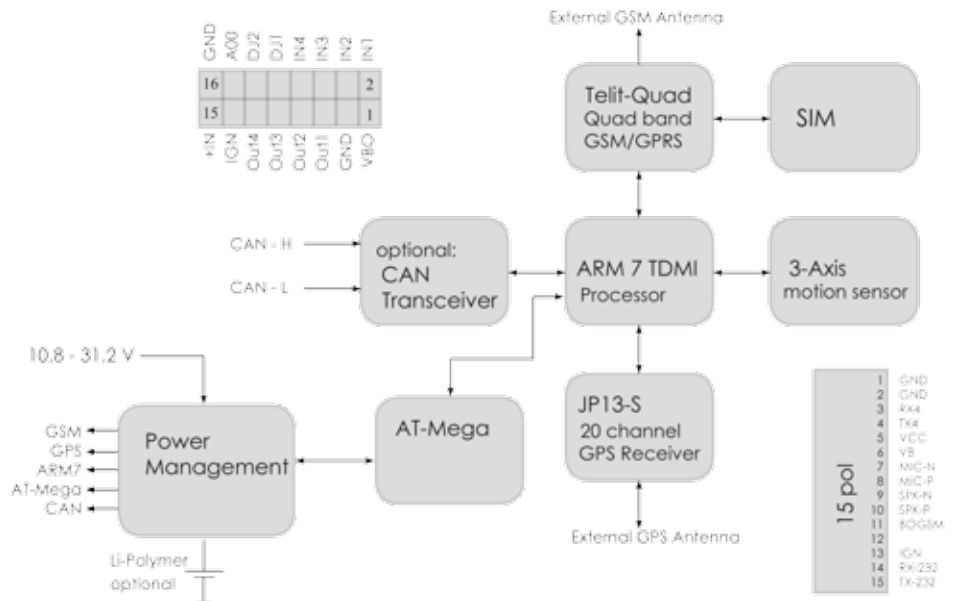
- Fleet management
- Vehicle management
- Remote tracking and monitoring
- Safety and security
- Off-road applications
- Real-time Navigation and Positioning
- Pay-as-you-drive

trace4you

- Real time tracking
- History data
- Geofence etc.



Block diagram



Technical specification

GSM core		Temperature range	
TELIT GE864-Quad module	850/900/1800/1900 MHz	Operating**:	-40 ° to +85 °C
GPRS class 10, class B	TCP/IP (accessible via PFAL commands)	Charging:	0 ° to +40 °C
		Discharging:	-20 ° to +60 °C
		Storage ***:	-40 ° to +90 °C
GPS core		Motion sensor	
FALCOM 20 channel GPS receiver	SiRFstarIII	3-axis motion sensor	
Protocols: NMEA, GGA, GGL, GSA, GSV, RMC, WGS-84		Interfaces	
Position accuracy: < 10 m CEP without SA	TTF hot start: < 1 s average	16pin MOLEX 43045-1609:	
TTF cold start: < 42 s average	Tracking sensitivity: -159 dBm (13dBHz)	2 digital inputs, 4 analogue inputs	
		4 digital outputs, ignition, power input,	
		15pin AMP 5-558556-1:	
		RS232 (Rx, Tx), Speaker, Microphone, Power Output, Vbatt	
Processor core		SIM card reader for small 3 V SIM cards	
ARM7/TDMI	Memory: 2 MB / 512 kB	GPS RF connector 50 Ohm FAKRA/Radiall	
		GSM RF connector 50 Ohm FAKRA/Radiall	
		3 LEDs (user programmable)	
Electrical characteristics			
Power: +10,8 V to + 31,2 V DC			
Backup battery*			
Physical characteristics			
Dimensions (LxWxH): 55 x 88 x 22 mm			
Weight: approx. 120 g			

* optional available

** these temperatures can affect the sensitivity and performance of the unit

*** over- and underruns lead to battery damage